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EDITED AND REVIEWED BY  
Gael Le Roux,  
UMR5245 Laboratoire Ecologie Fonctionnelle  
et Environnement (ECOLAB), France

\*CORRESPONDENCE  
Nickolas F. Lake  
✉ Nickolas.lake@unb.ca

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# Correction: A Holocene fire history from Terra Nova National Park, Newfoundland, Canada: vegetation and climate change both influenced the fire regime

Nickolas F. Lake<sup>1,2\*</sup>, André Arsenault<sup>2</sup> and Les C. Cwynar<sup>1</sup>

<sup>1</sup>Department of Biology, University of New Brunswick, Fredericton, NB, Canada, <sup>2</sup>Atlantic Forestry Centre, Corner Brook Office – Canadian Forest Service, Natural Resources Canada, Corner Brook, NL, Canada

## KEYWORDS

fire return interval, Holocene, pollen analysis, charcoal analysis, Terra Nova National Park, fire frequency, climate, Newfoundland

## A Correction on

A Holocene fire history from Terra Nova National Park, Newfoundland, Canada: vegetation and climate change both influenced the fire regime

By Lake NF, Arsenault A and Cwynar LC (2024) *Front. Ecol. Evol.* 12:1419121. doi: 10.3389/fevo.2024.1419121

In the published article, there was an error in [Figure 5](#) as published. An error was made when calculating pollen accumulation rate (PAR). The R package “rbacon” was used to create the age–depth model and extract the sediment accumulation rate or deposition time. By default, the argument “cmyr” is set to FALSE and sediment accumulation rates are calculated in years per cm. To obtain the sediment accumulation rate, the cmyr argument must be set to TRUE. Due to the wording in the manual, we thought that the sediment accumulation rate was extracted, but deposition time was extracted. In the paper, we used the incorrect formula to calculate PAR given that we extracted the deposition time and not the sediment accumulation rate. In the correction, we used  $PAR = \frac{\text{Pollen Concentration}}{\text{Deposition Time} (\frac{\mu}{cm})}$ . The corrected [Figure 5](#) and its caption appear below.

In the published article, there was an error in [Figure 6](#) as published. Several pollen concentration values were incorrect due to the volume not being standardized to 1 cm<sup>3</sup>. An error was also made when calculating pollen accumulation rate (PAR). The R package “rbacon” was used to create the age–depth model and extract the sediment accumulation rate or deposition time. By default, the argument “cmyr” is set to FALSE and sediment

accumulation rates are calculated in years per cm. To obtain the sediment accumulation rate, the cm/yr argument must be set to TRUE. Due to the wording in the manual, we thought that the sediment accumulation rate was extracted, but deposition time was extracted. In the paper, we used the incorrect formula to calculate PAR given that we extracted the deposition time and not the sediment accumulation rate. In the correction, we used  $PAR = \frac{Pollen\ Concentration}{Deposition\ Time\ (\frac{cm}{yr})}$ . The corrected Figure 6 and its caption appear below.

A correction has been made to **Discussion**, *Influence of vegetation on the fire regime*, paragraph 3. This sentence previously stated:

“The fire-facilitated *Picea* was also likely in low density stands for much of zone 2, as the average pollen influx of ~1,750 grains/cm<sup>2</sup>/year was lower than the average *Picea* influx of pollen zone 4b where a closed canopy was likely present (~3,100 grains/cm<sup>2</sup>/year) (Figure 6b).”

The corrected sentence appears below:

“The fire-facilitated *Picea* was also likely in low density stands for much of zone 2, as the average pollen influx of ~1,900 grains/cm<sup>2</sup>/year was lower than the average *Picea* influx of pollen zone 4b where a closed canopy was likely present (~4,800 grains/cm<sup>2</sup>/year) (Figure 6b).”

A correction has been made to the **Acknowledgments**. This sentence previously stated:

“We would like to thank K. Costanza, D. Łucówand J.M. St-Jacques for constructive comments used to improve the manuscript. We would also like to thank R. Skinner and K. Gaudet for their aid in the field and lab. The contents of this manuscript build upon the thesis of NL.”

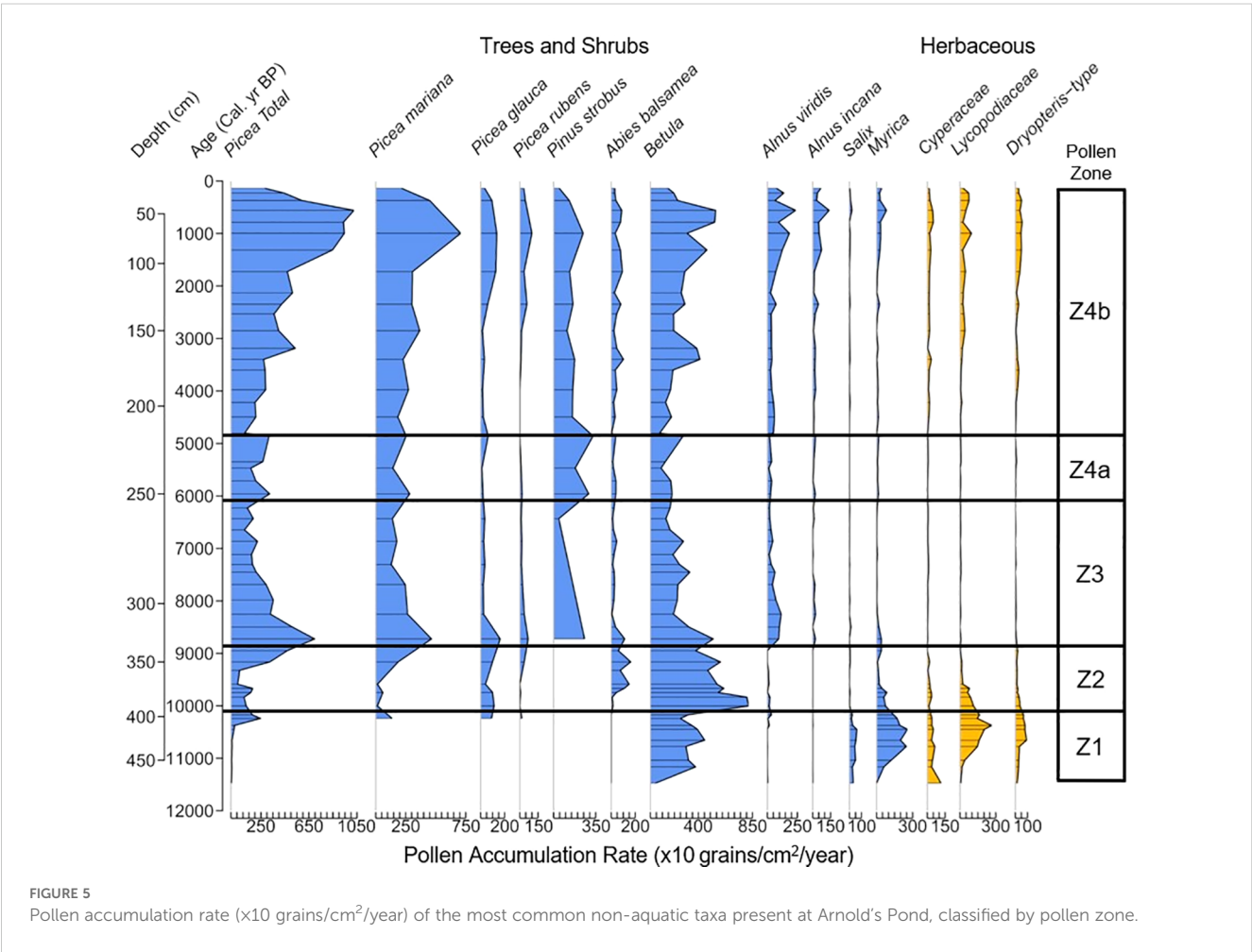
The corrected sentence appears below:

“AA as the principal investigator received a Parks Canada Research and Collection Permit to sample within Terra Nova National Park (Permit Number: TNP-2017-25138). We would like to thank K. Costanza, D. Łucówand J.M. St-Jacques for constructive comments used to improve the manuscript. We would also like to thank R. Skinner and K. Gaudet for their aid in the field and lab. The contents of this manuscript build upon the thesis of NL.”

The original article has been updated.

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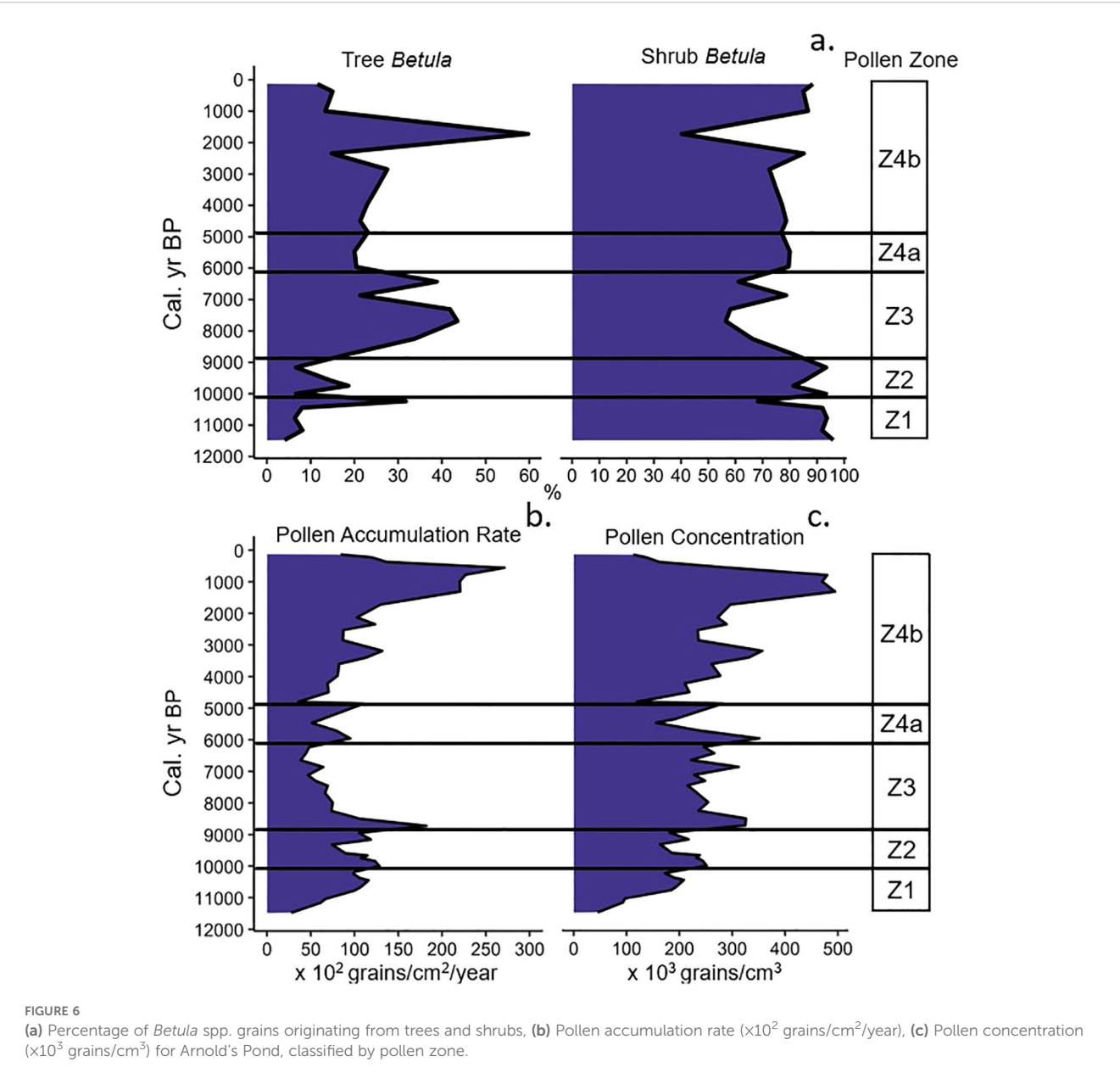


FIGURE 6 (a) Percentage of *Betula* spp. grains originating from trees and shrubs, (b) Pollen accumulation rate ( $\times 10^2$  grains/cm<sup>2</sup>/year), (c) Pollen concentration ( $\times 10^3$  grains/cm<sup>3</sup>) for Arnold's Pond, classified by pollen zone.